

550875

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/088841 A2

(51) International Patent Classification⁷: **H03H 17/00**

(21) International Application Number:
PCT/IB2004/050323

(22) International Filing Date: 24 March 2004 (24.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03100846.9 31 March 2003 (31.03.2003) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

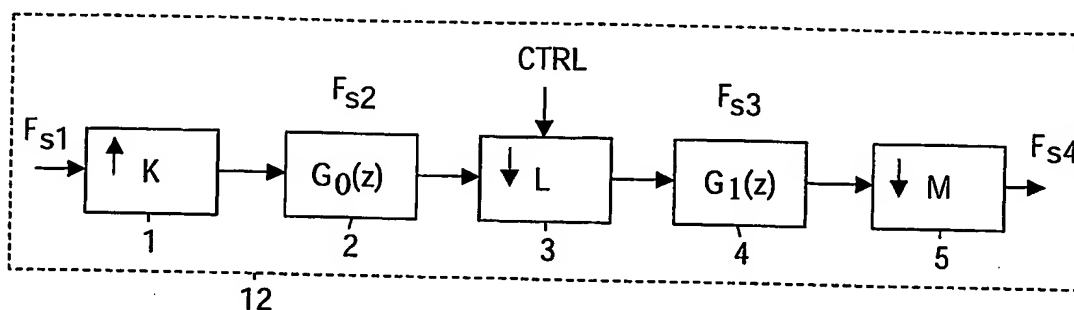
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: UP AND DOWN SAMPLE RATE CONVERTER



(57) Abstract: Sample rate converters (12) for converting input sample rates (F_{s1}) of signals into output sample rates (F_{s4}) are provided with sample rate adapters (3,6) for adapting (basic idea) intermediate sample rates (F_{s2}) such that output sample rates (F_{s4}) are larger (upsampling) or smaller (downsampling) than input sample rates (F_{s1}), to reduce their complexity and to avoid bookkeeping and structure switching problems. Sample rate adapters (3,6) in the form of variable sample rate decrease (3) allow the sample rate converters (12) to be used in video applications requiring DC-out being equal to DC-in. Sample rate adapters (3,6) in the form of variable sample rate increase (6) allow the sample rate converters (12) to be used in audio applications. By locating the sample rate adapter (3,6) between a fixed sample rate increaser (1) for increasing with a factor K and a fixed sample rate decrease (5) for decreasing with a factor M, filters (2,4) in between can be designed independently from the varying factor L as long as K and M are fixed and $L < K$.

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